IDPH
ILLINOIS DEPARTMENT OF PUBLIC HEALTH
422 South Fifth Street, Fourth Floor • Springfield, Illinois 62701-1824 • www.dph.illinois.gov

Dean Harrison
President/CEO
Northwestern Memorial Hospital
251 E Huron St
Chicago, Illinois 606

VIA CERTIFIED US MAIL

March 7, 2018

Mr. Harrison:

The Illinois Department of Public Health has been reviewing the number of hours that Illinois hospitals have been on bypass/resource limitation. This review is based on what is reported by each hospital to EMResource. In 2018, YTD, DPH notes that Northwestern Memorial Hospital has been on bypass 431 hours**,** or 58% of the total hours making up that time period on a 24/7 basis. Northwestern has reported the highest cumulative total of bypass hours by nearly a 2:1 margin when compared to all other Illinois hospitals with emergency departments. Section 515.315 (a) of the Administrative Code states, in pertinent part:

> ***"The Department shall investigate the circumstances that caused a hospital in an EMS System to go on bypass status to determine whether that hospital's decision to go on bypass status was reasonable"***

Therefore, pursuant to 210 ILCS 50/3.125, DPH is requesting that Northwestern Memorial Hospital submit the following information and materials for February, 2018:

- Steps previously taken to mitigate going on bypass/resource limitation;
- Number of open monitored beds, by day, at the time that each decision to go on bypass/resource limitation was made;
- Documentation of attempts to call in additional staff to avoid going on bypass; and
- Steps/plan being taken to reduce the number of hours on bypass in the future.

Please be so kind as to submit this information to me within 14 days of your receipt of this letter. If you have any questions, do not hesitate contacting me at Leslee.Stein-Spencer@Illinois.gov.

Sincerely,

Leslee Stein-Spencer R.N., M.S.
Acting Division Chief
Division of EMS and Highway Safety

Cc: James Adams MD, Chief of Staff
Ken Pearlman MD, EMSMD
Pattie Lindeman R.N., EMS Coordinator
Amy Galant, Director of Emergency Preparedness and Planning
Elizabeth Duarte R.N., Region XI EMS Coordinator

Northwestern Medicine

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March 26, 2018

Leslee Stein-Spencer, RN, MS
Division of EMS and Highway Safety
Illinois Department of Public Health
422 South Fifth Street, Fourth Floor
Springfield, Illinois 62701-1824

Dear Ms Stein-Spencer,

Thank you for your letter to Dean Harrison received March 13, 2018. We are pleased to respond to your request for information regarding our ongoing capacity to provide access to life support ambulances. Our response is detailed in the attached document and is organized to directly answer the questions in your letter.

The safety of our patients is the most important factor considered when a decision is made to divert ambulances to the next closest hospital. While a bypass decision is always made reluctantly, we believe that these decisions were consistent with the needs of the patients already at Northwestern at the time the decisions were made, the relevant standards of care and the EMS regulatory framework.

We welcome the opportunity to continue to work with you, your team, Chicago Fire Department Emergency Medical Services and our Illinois EMS Region 11 colleagues in order to assure we collectively provide the highest level of care to the people we serve.

Please feel free to contact me if you would like to discuss this further.

Sincerely,

7(1)(b) [redacted]

Julia L. Creamer
President
Northwestern Memorial Hospital

Northwestern Memorial Hospital
Response to Illinois Department of Public Health Bypass/Resource Limitation Inquiry, March 7, 2018

Enclosed are data as requested related to bypass/resource limitation status during the month of February, 2018, including:

- Steps previously taken to mitigate going on bypass/resource limitation;
- Number of open monitored beds, by day, at the time each decision to go on bypass/resource limitation was made
- Documentation of attempts to call in additional staff to avoid going on bypass; and
- Steps/plan being taken to reduce the number of hours on bypass in the future.

Mitigation Steps Implemented to Date to Avoid Bypass or Resource Limitation

1) Daily leadership huddle

Daily leadership huddles are conducted at 8:30 am with the presidents of the hospital and medical group, vice presidents and directors from all hospital departments – 20-30 members of the leadership team total. The huddle includes a discussion of that day's throughput and patient safety issues. Following the huddle, a summary of the day's current capacity and expected discharges is emailed to the team. This data informs diversion decisions.

2) Real-Time Demand Capacity (RTDC)

Real-Time Demand Capacity (RTDC) is a daily assessment of bed demand and projected discharges. An interdisciplinary team is assembled, including medical and nursing leadership, bed planning, PT, OT, lab, pharmacy, social work, respiratory therapy, procedural area, and diagnostic imaging representation. This team is responsible for identifying potential discharges for the day, and eliminating all barriers by expediting tests, procedures, transportation, and placement for those patients eligible for discharge.

3) Care Initiation of medical patients in surgical beds

On days when there is excess surgical capacity, the Medicine service admits ED patients to open surgical beds. These patients then receive the highest priority for transfer to a medicine bed. In February, 84 patients were admitted to surgical beds in accordance with this practice.

4) Cardiology Observation Unit expansion

In October 2017, 5 additional cardiology observation beds opened on Galter 10.

5) Continuous Performance Improvement

Many performance improvement projects aimed at reducing length of stay (LOS) and optimizing bed utilization have been completed. Currently our efforts have reduced the number of patients diverted from the ED, streamlined internal ED processes, and improved our ability to advance care on the weekends. Below are the projects whose reductions in length of stay have resulted in increased inpatient bed capacity.

Complex High Admission Management Program provides continuity of care, intensive case management and personalized care plans for patients with frequent hospital visits. This project has generated admission/LOS reductions equivalent to adding 1.7 beds.

Complex Discharges Social workers dedicated to patients with complex discharge needs work with patients, their families, NMH leadership and community resources to resolve barriers to discharge. This project has generated admission/LOS reductions equivalent to adding 6 beds.

Acute Rehab Pathway Length of stay reduction for patients discharged to acute inpatient rehab facilities. This project has generated LOS reductions equivalent to adding 5 beds.

Reduction in bed clean times by adding Environmental Services staff to units during peak discharge hours. This project has generated increased capacity equivalent to adding 0.5 beds

Attending Nurses are dedicated staff who facilitate earlier discharge by proactively identifying patient discharge needs and engaging the resources described above.

Director and Medical Director were appointed to oversee the Patient Throughput Program

6) Virtual Capacity Unit - Creation of "virtual" (or flex) capacity and resources

The Virtual Capacity Unit (VCU) is a visionary concept that offers a short stay inpatient hospital service. The VCU provides ED-based observation care, inpatient care initiation, and definitive general med/surg inpatient care within the four walls of the Emergency Department. The effective "virtual beds" gained by avoiding admissions and advancing patients' care while in the ED were the equivalent of 3 inpatient beds and in the future the bed gain will be equivalent to 8-10 beds.

Action Taken by the ED to Mitigate Diversion

1) Bedside registration. Bedside registration is a best practice that NMH has adopted to reduce length of stay.
2) Streeterville Immediate Care Center. This on campus facility opened in Fall, 2017, and we are currently caring for approximately 50 patients a day.
3) Patient Flow Redesigns NMH eliminated its "fast track" unit in June of 2016 due to declining low-acuity ED volume. The space was repurposed to support modern patient flow redesigns and the implementation of the split flow model, called "Care at Arrival Team." This redesign has successfully accelerated care by making triage shorter and providing definitive care to a significant proportion (30%) of ED patients. Early results of this patient flow redesign demonstrated a 30 minute decrease in median discharge LOS.
4) ED Imaging expansion. NMH added a second CT scanner and third x-ray imaging suite to the ED in June 2016. This reduced median wait times by 45 minutes for plain film and non-contrast CT.
5) ED-based Observation. NMH has operated a 4-bed observation unit in the ED, which was recently expanded into an 8-bed Virtual Capacity Unit as described above.

Number of Inpatient Open and Monitored Beds

Over the last three years, the case mix index (CMI), LOS, and average daily census have increased as NMH cares for sicker, more complex patients. The overall hospital census has increased, as we are caring for approximately 32 more patients per day since 2015. Our ability to provide care to these increasingly more complex patients is dependent on effective capacity management since the demand exceeds our current bed capacity. Despite our best efforts, there remains about 40 patients per day who cannot be accommodated.

Attachment A shows the following:

- EM Resource diversion times,
- Number of medical, cardiology, surgical and ICU beds open at the top of the hour that the diversion decision was made,
- ED census that includes patients in the ED, the ED waiting room and patients awaiting an inpatient bed.

The lack of inpatient beds, particularly medical and cardiology beds, is one of the primary drivers of ALS diversion.

Staffing Associated with Times of Bypass Decisions

The decision to go on bypass at NMH is not driven by staffing as we have adequate nurses and other staff to cover all beds.

Mitigation Steps Planned and Under Way to Avoid Bypass or Resource Limitation

As we continue to develop options to improve throughput, the necessity for diversion may decrease.

1) Observation Expansion

   A project is underway to expand the capacity of medicine observation beds by 18. These beds will open in May 2018 and serve as flex capacity for the ED Expansion (see below) until July 2018, when they will become fully operational observation beds. In addition, another 9 observation beds will be available later this year for patients with cancer.

2) ED Expansion

   At present, the ED is undergoing renovation which will be completed in December, 2018. Once the ED construction project is complete, the ED will expand from 56 to 78 beds.

IDPH
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05/31/18

Julia L. Creamer President
Northwestern Memorial Hospital
251 East Huron St.
Chicago, Illinois 60611

Dear Ms Creamer:

The Illinois Department of Public Health team reviewed your plan of correction dated 03/25/18 prior to conducting a site visit on 04/30/18. During the site visit some initiatives to decrease bypass hours were noted, (although not all of them have been implemented as yet, and below is a summary of some of them:

- Power point presentation that outlined a detailed plan on decreasing the hospital bypass hours. This plan included a pilot program for environmental services, designed to decrease wait time for patients in the emergency department who has been admitted to the floor but waiting for a clean bed, ultimately resulting in less time spent in the emergency department.
- Complex High Admissions Management Program.
- The vertical capacity unit, providing additional space.
- A predictive model that provides triggers as to what is needed to discharge patients as quickly as possible.
- An overview was given on how bypass will be decreased even more once the construction is completed and all processes are in place.

During the site visit the support and commitment from your hospital administration, physicians, and various departments throughout the hospital was evident and each department had the same common goal to decrease bypass hours was apparent.

IDPH realizes there are many challenges while construction is going on, especially for hospitals with extremely high volume of patients such as Northwestern, which makes it more challenging. However, there are still issues that were noted by the Department that need to be addressed especially since the hospitals bypass hours to date still remains at an unacceptable number. These issues are as follows:

- We asked for a copy of the Hospital Surge Plan and, were given the hospital Emergency Management Plan instead which is dated 2013 and still in the draft format. The Hospital Surge Plan needs to be submitted to me by July 1, 2018
- We also requested a copy of Peak Census Policy and were given the Emergency Management Policy. The Peak Census Policy must be submitted to me by July 1, 2018.
- It appeared that no one in the meeting was familiar with what we were asking for, which was surprising because we were told the hospital operates in surge mode on a daily basis.
- Although, your facility has put multiple processes in place; bypass hours continues to remain high.

Once a decision is made to go on bypass, plans should be in place to come off as quickly as possible. We were informed that this was being done but the process to assure that this is instituted was not shared.

The Department appreciates your continued efforts in working towards decreasing bypass hours. Please be advised that IDPH takes hospital bypass very seriously and will continue to monitor Northwestern bypass hours closely.

The department expects to a see progressive improvement in the coming months, which may entail another IDPH site visit or further action. Please contact me if you have any questions at (312) 814-5266 or email me @ elizabeth.duarte@illinois.gov

Sincerely,

7(1)(b) [redacted]

Elizabeth Duarte, RN, BSN, MBA
Regional EMS Coordinator

cc: Leslee Stein-Spencer, RN, MS, Acting Division Chief of EMS, IDPH
Shannon Wilson RN, Shannon Wilson, R.N., B.S.N., M.S Regional EMS Coordinator IDPH
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